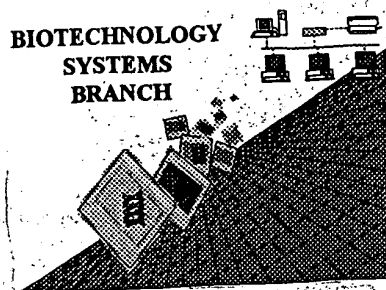


RAW SEQUENCE LISTING ERROR REPORT



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/029,677
Source: ORF
Date Processed by STIC: 1/15/2002

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FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

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PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

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1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm>), EFS Submission

User Manual - ePAVE)

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OIPE

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/10/029,677

DATE: 01/15/2002
 TIME: 08:03:45

Input Set : A:\ES.txt
 Output Set: N:\CRF3\01152002\J029677.raw

3 <110> APPLICANT: Bristol-Myers Squibb Company
 5 <120> TITLE OF INVENTION: NUCLEIC ACID MOLECULES AND POLYPEPTIDES FOR A HUMAN CATION

CHANNEL

6 POLYPEPTIDE
 8 <130> FILE REFERENCE: D0187NP
 C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/029,677
 C--> 10 <141> CURRENT FILING DATE: 2001-12-21
 10 <150> PRIOR APPLICATION NUMBER: US 60/257,865
 11 <151> PRIOR FILING DATE: 2000-12-21
 13 <160> NUMBER OF SEQ ID NOS: 24
 15 <170> SOFTWARE: PatentIn version 3.0
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 18 <211> LENGTH: 2186
 19 <212> TYPE: DNA
 20 <213> ORGANISM: Homo sapiens
 22 <220> FEATURE:
 23 <221> NAME/KEY: CDS
 24 <222> LOCATION: (20)..(2011)
 26 <220> FEATURE:
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 29 <223> OTHER INFORMATION: wherein "n" equals A, C, G, or T.
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 35 1 5 10
 37 cca gcc aat aat cac aac cat cat gca cct cct gcc atc aag gcc aat 100
 38 Pro Ala Asn Asn His Asn His Ala Pro Pro Ala Ile Lys Ala Asn
 39 15 20 25
 41 ggc aaa gat gac cac agg aca agc agc agg cca cac tct gca gct gac 148
 42 Gly Lys Asp Asp His Arg Thr Ser Ser Arg Pro His Ser Ala Ala Asp
 43 30 35 40
 45 gat gac acc tcc tca gaa ctg cag agg ctg gca gac gtg gat gcc cca 196
 46 Asp Asp Thr Ser Ser Glu Leu Gln Arg Leu Ala Asp Val Asp Ala Pro
 47 45 50 55
 49 cag cag gga agg agt ggc ttc cgc agg ata gtt cgc ctg gtg ggg atc 244
 50 Gln Gln Gly Arg Ser Gly Phe Arg Arg Ile Val Arg Leu Val Gly Ile
 51 60 65 70 75
 53 atc aga gaa tgg gcc aac aag aat ttc cga gag gag gaa cct agg cct 292
 54 Ile Arg Glu Trp Ala Asn Lys Asn Phe Arg Glu Glu Glu Pro Arg Pro
 55 80 85 90
 57 gac tca ttc ctc gag cgt ttt cgt ggg cct gaa ctc cag act gtg acc 340
 58 Asp Ser Phe Leu Glu Arg Phe Arg Gly Pro Glu Leu Gln Thr Val Thr
 59 95 100 105
 61 aca cag gag ggg gat ggc aaa ggc gac aag gat ggc gag gac aaa ggc 388
 62 Thr Gln Glu Gly Asp Gly Lys Gly Asp Lys Asp Gly Glu Asp Lys Gly
 63 110 115 120
 65 acc aag aag aaa ttt gaa cta ttt gtc ttg gac cca gct ggg gat ttg 436

Does Not Comply
 Corrected Diskette Needed

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/029,677

DATE: 01/15/2002

TIME: 08:03:45

Input Set : A:\ES.txt

Output Set: N:\CRF3\01152002\J029677.raw

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67      125      130      135
69 tac tac tgc tgg cta ttt gtc att gcc atg ccc gtc ctt tac aac tgg      484
70 Tyr Tyr Cys Trp Leu Phe Val Ile Ala Met Pro Val Leu Tyr Asn Trp
71 140      145      150      155
73 tgc ctg ctg gtg gcc aga gcc tgc ttc agt gac cta cag aaa ggc tac      532
74 Cys Leu Leu Val Ala Arg Ala Cys Phe Ser Asp Leu Gln Lys Gly Tyr
75      160      165      170
77 tac ctg gtg tgg ctg gtg ctg gat tat gtc tca gat gtg gtc tac att      580
78 Tyr Leu Val Trp Leu Val Leu Asp Tyr Val Ser Asp Val Val Tyr Ile
79      175      180      185
81 gcg gac ctc ttc atc cga ttg cgc aca ggt ttc ctg gag cag ggg ctg      628
82 Ala Asp Leu Phe Ile Arg Leu Arg Thr Gly Phe Leu Glu Gln Gly Leu
83      190      195      200
85 ctg gtc aaa gat acc aag aaa ctg cga gac aac tac atc cac acc ctg      676
86 Leu Val Lys Asp Thr Lys Lys Leu Arg Asp Asn Tyr Ile His Thr Leu
87      205      210      215
89 cag ttc aag ctg gat gtg gct tcc atc atc ccc act gac ctg atc tat      724
90 Gln Phe Lys Leu Asp Val Ala Ser Ile Ile Pro Thr Asp Leu Ile Tyr
91 220      225      230      235
93 ttt gct gtg gac atc cac agc cct gag gtg cgc ttc aac cgc ctg ctg      772
94 Phe Ala Val Asp Ile His Ser Pro Glu Val Arg Phe Asn Arg Leu Leu
95      240      245      250
97 cac ttt gcc cgc atg ttt gag ttc ttt gac cgg aca gag aca cgc acc      820
98 His Phe Ala Arg Met Phe Glu Phe Phe Asp Arg Thr Glu Thr Arg Thr
99      255      260      265
101 aac tac cct aac atc ttc cgc atc agc aac ctt gtc ctc tac atc ttg      868
102 Asn Tyr Pro Asn Ile Phe Arg Ile Ser Asn Leu Val Leu Tyr Ile Leu
103      270      275      280
105 gtc atc atc cac tgg aat gcc tgc atc tat tat gcc atc tcc aaa tcc      916
106 Val Ile Ile His Trp Asn Ala Cys Ile Tyr Tyr Ala Ile Ser Lys Ser
107      285      290      295
109 ata ggc ttt ggg gtc gac acc tgg gtt tac cca aac atc act gac cct      964
110 Ile Gly Phe Gly Val Asp Thr Trp Val Tyr Pro Asn Ile Thr Asp Pro
111 300      305      310      315
113 gag tat ggc tac ctg gct agg gaa tac atc tat tgc ctt tac tgg tcc      1012
114 Glu Tyr Gly Tyr Leu Ala Arg Glu Tyr Ile Tyr Cys Leu Tyr Trp Ser
115      320      325      330
117 aca ctg act ctc act acc att ggg gag aca cca ccc cct gta aag gat      1060
118 Thr Leu Thr Leu Thr Thr Ile Gly Glu Thr Pro Pro Pro Val Lys Asp
119      335      340      345
121 gag gag tac cta ttt gtc atc ttt gac ttc ctg att ggc gtc ctc atc      1108
122 Glu Glu Tyr Leu Phe Val Ile Phe Asp Phe Leu Ile Gly Val Leu Ile
123      350      355      360
125 ttt gcc acc atc gtg gga aat gtg ggc tcc atg atc tcc aac atg aat      1156
126 Phe Ala Thr Ile Val Gly Asn Val Gly Ser Met Ile Ser Asn Met Asn
127      365      370      375
129 gcc acc cgg gca gag ttc cag gct aag atc gat gcc gtg aaa cac tac      1204
130 Ala Thr Arg Ala Glu Phe Gln Ala Lys Ile Asp Ala Val Lys His Tyr

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/029,677

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Input Set : A:\ES.txt

Output Set: N:\CRF3\01152002\J029677.raw

131	380		385		390		395		
133	atg	cag	ttc	cga	aag	gtc	agc	aag	ggg
134	Met	Gln	Phe	Arg	Lys	Val	Ser	Lys	Gly
135					400				405
137	tg	g	t	t	g	a	c	a	a
138	Trp	Phe	Asp	Tyr	Leu	Trp	Thr	Asn	Lys
139				415				420	
141	att	ctc	aag	aat	ctg	cca	gcc	aag	ctc
142	Ile	Leu	Lys	Asn	Leu	Pro	Ala	Lys	Leu
143			430					435	
145	gtc	cac	ttg	tcc	aca	ctc	aag	aaa	gtg
146	Val	His	Leu	Ser	Thr	Leu	Lys	Lys	Val
147		445						450	
149	gct	ggc	ctg	ctg	gta	gag	ctg	gta	ctg
150	Ala	Gly	Leu	Leu	Val	Glu	Leu	Val	Leu
151	460				465			470	
153	agt	cct	ggg	gat	tac	att	tgc	cgc	aaa
154	Ser	Pro	Gly	Asp	Tyr	Ile	Cys	Arg	Lys
155				480				485	
157	tac	atc	att	aag	gag	ggc	aaa	ctg	gca
158	Tyr	Ile	Ile	Lys	Glu	Gly	Lys	Leu	Ala
159			495					500	
161	act	cag	tat	gct	ctg	ctg	tcg	gct	gga
162	Thr	Gln	Tyr	Ala	Leu	Leu	Ser	Ala	Gly
163			510					515	
165	atc	ctt	aac	att	aag	ggc	agt	aaa	atg
166	Ile	Leu	Asn	Ile	Lys	Gly	Ser	Lys	Met
167		525						530	
169	atc	cgc	agc	ctg	ggc	tac	tca	gat	ctc
170	Ile	Arg	Ser	Leu	Gly	Tyr	Ser	Asp	Leu
171	540				545			550	
173	ctt	atg	gaa	gct	gtg	act	gag	tac	cct
174	Leu	Met	Glu	Ala	Val	Thr	Glu	Tyr	Pro
175				560				565	
177	gag	agg	ggt	cgg	gag	atc	ctc	atg	aag
178	Glu	Arg	Gly	Arg	Glu	Ile	Leu	Met	Lys
179			575					580	
181	gaa	gtg	gca	acc	agc	atg	gag	gtc	gac
182	Glu	Val	Ala	Thr	Ser	Met	Glu	Val	Asp
183		590						595	
185	ctg	gag	acc	aac	atg	gaa	acc	ttg	tac
186	Leu	Glu	Thr	Asn	Met	Glu	Thr	Leu	Tyr
187		605						610	
189	gct	gag	tac	acg	ggg	gcc	cag	cag	aag
190	Ala	Glu	Tyr	Thr	Gly	Ala	Gln	Gln	Lys
191	620				625			630	
193	ctg	gaa	acc	aag	atg	aaa	cag	aac	aat
194	Leu	Glu	Thr	Lys	Met	Lys	Gln	Asn	Asn
195				640				645	

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/029,677

DATE: 01/15/2002

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Input Set : A:\ES.txt

Output Set: N:\CRF3\01152002\J029677.raw

197 ggg atg aac agc cct gag ctg gct gct gct gac gag cca taagacctgg 2021
 198 Gly Met Asn Ser Pro Glu Leu Ala Ala Ala Asp Glu Pro
 199 655 660
 201 ggcccaactg cctctccagc attggccttg gccttgatcc cagaagctag aggagctatt 2081
 203 tagatctccg gatttacatg cattaccctc atgttccctg aattctccca aaagtctctc 2141
 205 ~~w~~tgacctgng tttttggcct aaacatccaa gattccgcct cggat 2186
 208 <210> SEQ ID NO: 2
 209 <211> LENGTH: 664
 210 <212> TYPE: PRT
 211 <213> ORGANISM: Homo sapiens
 213 <220> FEATURE:
 214 <221> NAME/KEY: misc_feature
 215 <222> LOCATION: (2150)..(2150)
 216 <223> OTHER INFORMATION: wherein "n" equals A, C, G, or T.
 218 <400> SEQUENCE: 2
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 221 1 5 10 15
 224 Asn His His Ala Pro Pro Ala Ile Lys Ala Asn Gly Lys Asp Asp His
 225 20 25 30
 228 Arg Thr Ser Ser Arg Pro His Ser Ala Ala Asp Asp Asp Thr Ser Ser
 229 35 40 45
 232 Glu Leu Gln Arg Leu Ala Asp Val Asp Ala Pro Gln Gln Gly Arg Ser
 233 50 55 60
 236 Gly Phe Arg Arg Ile Val Arg Leu Val Gly Ile Ile Arg Glu Trp Ala
 237 65 70 75 80
 240 Asn Lys Asn Phe Arg Glu Glu Glu Pro Arg Pro Asp Ser Phe Leu Glu
 241 85 90 95
 244 Arg Phe Arg Gly Pro Glu Leu Gln Thr Val Thr Thr Gln Glu Gly Asp
 245 100 105 110
 248 Gly Lys Gly Asp Lys Asp Gly Glu Asp Lys Gly Thr Lys Lys Lys Phe
 249 115 120 125
 252 Glu Leu Phe Val Leu Asp Pro Ala Gly Asp Leu Tyr Tyr Cys Trp Leu
 253 130 135 140
 256 Phe Val Ile Ala Met Pro Val Leu Tyr Asn Trp Cys Leu Leu Val Ala
 257 145 150 155 160
 260 Arg Ala Cys Phe Ser Asp Leu Gln Lys Gly Tyr Tyr Leu Val Trp Leu
 261 165 170 175
 264 Val Leu Asp Tyr Val Ser Asp Val Val Tyr Ile Ala Asp Leu Phe Ile
 265 180 185 190
 268 Arg Leu Arg Thr Gly Phe Leu Glu Gln Gly Leu Leu Val Lys Asp Thr
 269 195 200 205
 272 Lys Lys Leu Arg Asp Asn Tyr Ile His Thr Leu Gln Phe Lys Leu Asp
 273 210 215 220
 276 Val Ala Ser Ile Ile Pro Thr Asp Leu Ile Tyr Phe Ala Val Asp Ile
 277 225 230 235 240
 280 His Ser Pro Glu Val Arg Phe Asn Arg Leu Leu His Phe Ala Arg Met
 281 245 250 255
 284 Phe Glu Phe Phe Asp Arg Thr Glu Thr Arg Thr Asn Tyr Pro Asn Ile
 285 260 265 270

1) Only 664 amino acids in the sequence.

2) This is an amino acid sequence. It's only used in a nucleotide sequence.

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/029,677

DATE: 01/15/2002

TIME: 08:03:45

Input Set : A:\ES.txt

Output Set: N:\CRF3\01152002\J029677.raw

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288 Phe Arg Ile Ser Asn Leu Val Leu Tyr Ile Leu Val Ile Ile His Trp
289      275      280      285
292 Asn Ala Cys Ile Tyr Tyr Ala Ile Ser Lys Ser Ile Gly Phe Gly Val
293      290      295      300
296 Asp Thr Trp Val Tyr Pro Asn Ile Thr Asp Pro Glu Tyr Gly Tyr Leu
297 305      310      315      320
300 Ala Arg Glu Tyr Ile Tyr Cys Leu Tyr Trp Ser Thr Leu Thr Leu Thr
301      325      330      335
304 Thr Ile Gly Glu Thr Pro Pro Pro Val Lys Asp Glu Glu Tyr Leu Phe
305      340      345      350
308 Val Ile Phe Asp Phe Leu Ile Gly Val Leu Ile Phe Ala Thr Ile Val
309      355      360      365
312 Gly Asn Val Gly Ser Met Ile Ser Asn Met Asn Ala Thr Arg Ala Glu
313      370      375      380
316 Phe Gln Ala Lys Ile Asp Ala Val Lys His Tyr Met Gln Phe Arg Lys
317 385      390      395      400
320 Val Ser Lys Gly Met Glu Ala Lys Val Ile Arg Trp Phe Asp Tyr Leu
321      405      410      415
324 Trp Thr Asn Lys Lys Thr Val Asp Glu Arg Glu Ile Leu Lys Asn Leu
325      420      425      430
328 Pro Ala Lys Leu Arg Ala Glu Ile Ala Thr Asn Val His Leu Ser Thr
329      435      440      445
332 Leu Lys Lys Val Arg Ile Phe His Asp Cys Glu Ala Gly Leu Leu Val
333      450      455      460
336 Glu Leu Val Leu Lys Leu Arg Pro Gln Val Phe Ser Pro Gly Asp Tyr
337 465      470      475      480
340 Ile Cys Arg Lys Gly Asp Ile Gly Lys Glu Met Tyr Ile Ile Lys Glu
341      485      490      495
344 Gly Lys Leu Ala Val Val Ala Asp Asp Gly Val Thr Gln Tyr Ala Leu
345      500      505      510
348 Leu Ser Ala Gly Ser Cys Phe Gly Glu Ile Ser Ile Leu Asn Ile Lys
349      515      520      525
352 Gly Ser Lys Met Gly Asn Arg Thr Ala Asn Ile Arg Ser Leu Gly
353      530      535      540
356 Tyr Ser Asp Leu Phe Cys Leu Ser Lys Asp Asp Leu Met Glu Ala Val
357 545      550      555      560
360 Thr Glu Tyr Pro Asp Ala Lys Lys Val Leu Glu Glu Arg Gly Arg Glu
361      565      570      575
364 Ile Leu Met Lys Glu Gly Leu Leu Asp Glu Asn Glu Val Ala Thr Ser
365      580      585      590
368 Met Glu Val Asp Val Gln Glu Lys Leu Gly Gln Leu Glu Thr Asn Met
369      595      600      605
372 Glu Thr Leu Tyr Thr Arg Phe Gly Arg Leu Leu Ala Glu Tyr Thr Gly
373      610      615      620
376 Ala Gln Gln Lys Leu Lys Gln Arg Ile Thr Val Leu Glu Thr Lys Met
377 625      630      635      640
380 Lys Gln Asn Asn Glu Asp Asp Tyr Leu Ser Asp Gly Met Asn Ser Pro
381      645      650      655
384 Glu Leu Ala Ala Ala Asp Glu Pro

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Use of n and/or Xaa has been detected in the Sequence Listing.
 Review the Sequence Listing to insure a corresponding
 explanation is presented in the <220> to <223> fields of
 each sequence using n or Xaa.

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/029,677

DATE: 01/15/2002

TIME: 08:03:46

Input Set : A:\ES.txt

Output Set: N:\CRF3\01152002\J029677.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application No
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:205 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:391 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:3
L:403 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:4
L:415 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:5
L:427 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:6
L:439 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:7
L:451 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:8
L:463 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:9
L:475 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:10
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L:511 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:13
L:523 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:14